

# 81. Greater Thames Estuary

Supporting documents

Introduction & Summary

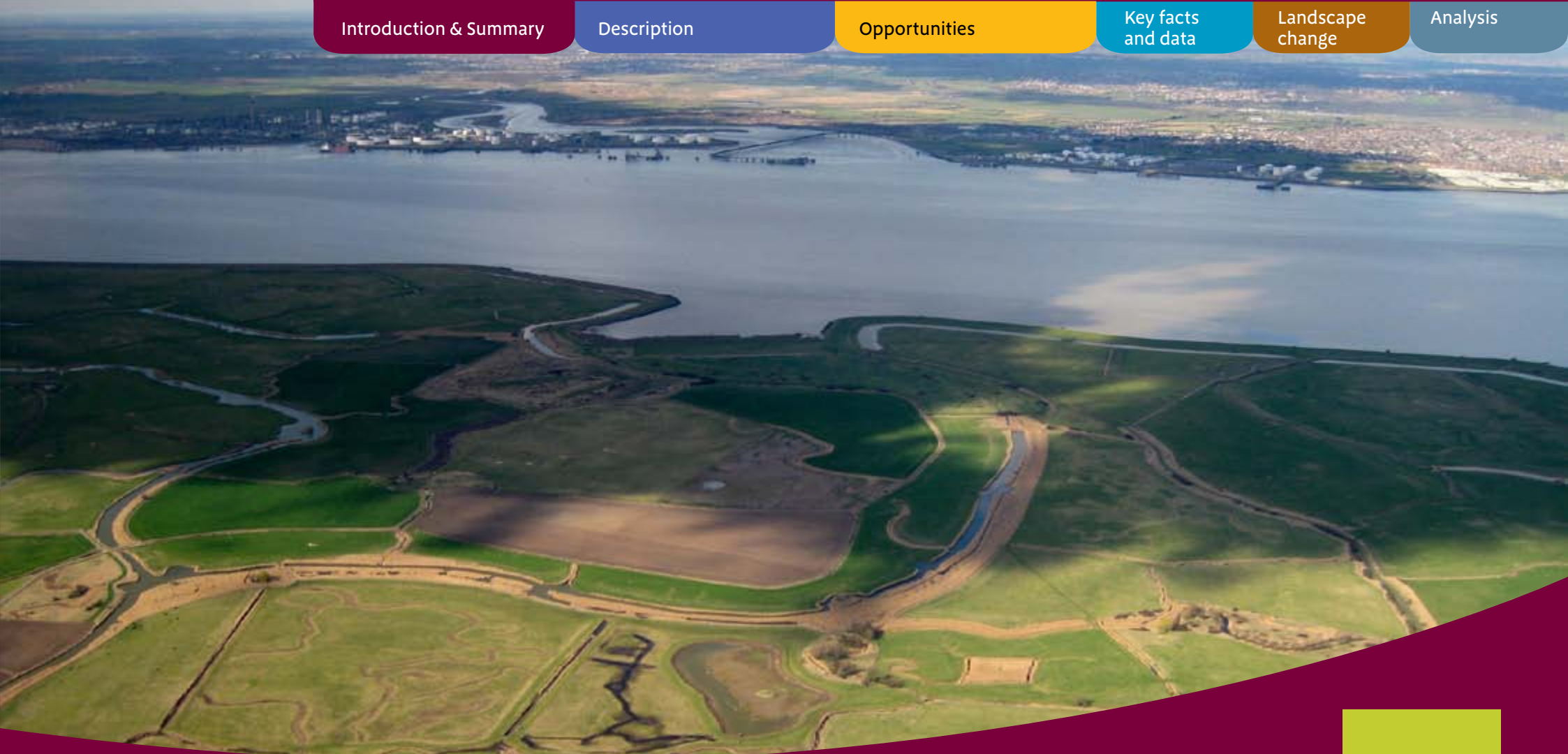
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## Summary

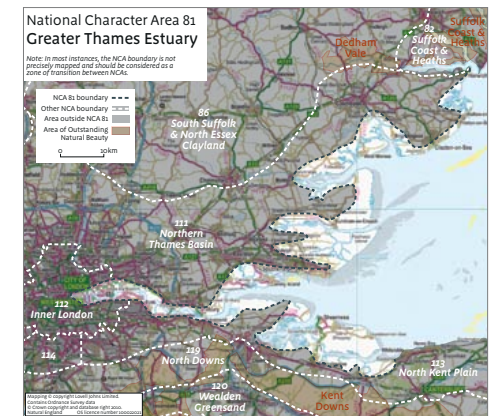
The Greater Thames Estuary National Character Area (NCA) is predominantly a remote and tranquil landscape of shallow creeks, drowned estuaries, low-lying islands, mudflats and broad tracts of tidal salt marsh and reclaimed grazing marsh that lies between the North Sea and the rising ground inland. It forms the eastern edge of the London Basin and encompasses the coastlines of South Essex and North Kent, along with a narrow strip of land following the path of the Thames into East London.

Despite its close proximity to London, the NCA contains some of the least settled areas of the English coast, with few major settlements and medieval patterns of small villages and hamlets on higher ground and the marsh edges. This provides a stark contrast to the busy urban and industrial areas towards London where population density is high and development pressures are increasing. Sea defences protect large areas of reclaimed grazing marsh and its associated ancient fleet and ditch systems, and productive arable farmland. Historic military landmarks are characteristic features of the coastal landscape.

The coastal habitats of the NCA are internationally important for their biodiversity interest and support large numbers of overwintering and breeding wetland birds, rare plant and invertebrate species, and diverse marine wildlife. The vast majority of the coastline and estuaries are designated as Ramsar sites and Special Protection Areas, while the Essex Estuaries are a Special Area of Conservation. Brownfield sites support priority open mosaic habitat and its associated nationally rare invertebrate species. The coastline is also of major geomorphological interest for the study of

estuarine and coastal processes, and for its nationally and internationally important deposits of London Clay fossils and Pleistocene sediments.

There is a marked contrast between the wild and remote coastal marshes, and the industrial and urban developments which are highly visible in the low-lying landscape. A key challenge is to accommodate increasing development pressure in the area with the protection and enhancement of the natural landscape and its internationally important coastal habitats and species, and nationally important open mosaic habitat. Rising sea levels due to climate change present a major threat to coastal areas in the NCA through coastal squeeze, the alteration of coastal processes and increased flood risk – and the integrated management of these issues provides a major challenge.



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## Statements of Environmental Opportunities:

- **SEO 1:** Maintain and enhance the expansive, remote coastal landscape – with its drowned estuaries, low islands, mudflats, and broad tracts of tidal salt marsh and reclaimed grazing marsh – maintaining internationally important habitats and their wildlife, and underlying geodiversity, while addressing the impacts of coastal squeeze and climate change and considering dynamic coastal processes.
- **SEO 2:** Work with landowners and managers to incorporate measures to improve biodiversity, geodiversity, pollination, water quality, soil quality and climate adaptation and to prevent soil erosion in this important food-providing landscape, while maintaining its historic character.
- **SEO 3:** Ensure that the tranquil and remote character of the estuary is maintained by conserving and enhancing important coastal habitats and distinctive historic and geological features, while providing increased opportunities for recreation and enjoyment of the landscape.
- **SEO 4:** Encourage a strategic approach to development that is informed by and makes a positive contribution to local character, incorporates green infrastructure which provides ecosystem services where they are needed most, and promotes recreation and addresses climate change, while maintaining important open mosaic and coastal habitats, and historic and geological features.



Coastal saltmarsh habitat at Hamford Water in Essex.

## Description

### Physical and functional links to other National Character Areas

The Greater Thames Estuary National Character Area (NCA) forms the eastern edge of the London Basin, and its extensive underlying geology of London Clay provides links with the Northern Thames Basin NCA and, further west, the Inner London NCA.

The NCA lies between the North Sea and the rising ground of the adjacent North Kent Plain and Northern Thames Basin NCAs which provide a backdrop to the extensive flat open spaces of the estuary. Uninterrupted, far-reaching views out across the Thames to the opposite banks are possible from this higher ground, and industrial and historic military landmarks are highly visible in this predominantly low-lying marshy coastal landscape.

The Thames is one of the major estuaries of the eastern English coast and drains over 16,000 km<sup>2</sup> of land, from the source of the River Thames in Gloucestershire to the west, and the southern reaches of the River Medway in the High Weald of Sussex. To the north the NCA includes the estuaries of the rivers Crouch, Roach, Blackwater, Colne and Stour and the embayment<sup>4</sup> of Hamford Water, which together reach far into the Northern Thames Basin NCA and beyond into the South Suffolk and North Essex Claylands NCA. There is hydrological continuity between Tertiary deposits of Thanet Sands in the far west of the NCA and the underlying principal London Basin Chalk

aquifer, which stretches through the Northern Thames Basin NCA and into the Chilterns NCA to the north and the North Downs NCA to the south.

Coastal processes of erosion, transportation and deposition provide a functional link between the Greater Thames Estuary NCA and the contrasting coastlines of the adjacent North Kent Plain NCA and Suffolk Coast and Heaths NCA, with littoral drift occurring southwards along the coast. The marshes were created from the material carried by the sea from the north, and a continued supply of sediment is needed to sustain them. Functional connectivity is also provided by the continuation of coastal habitats into adjacent NCAs, with the Stour, Orwell, Debden and Alde–Ore estuaries occurring on the Suffolk coastline, and large areas of grazing marsh habitat behind coastal defences in the North Kent Plain NCA.

The River Thames itself provides a major transport link to the Inner London NCA with jetties, wharfs and docks occurring throughout. An extensive network of road and rail bridges spans the NCA's western reaches, including the M25 Dartford crossing, as it follows the Thames path winding through the eastern part of Inner London. The Saxon Shore Way stretches 257 km along the Kent coastline from Gravesend to Hastings in East Sussex, linking the North Kent Plain, North Downs, Wealden Greensand and Romney Marshes NCAs. The Thames Path National Trail follows the path of the Thames from its source in the Cotswolds, to Greenwich in the East London part of the NCA.

<sup>4</sup> A recess in a coastline forming a bay

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## Key characteristics

- Predominantly flat, low-lying coastal landscape where extensive open spaces are dominated by the sky, and the pervasive presence of water and numerous coastal estuaries extend the maritime influence far inland.
- Eastern edge of the London Basin with its underlying geology of the extensive London Clay, containing important sites for geodiversity including fossiliferous deposits, and overlain by productive loamy soils derived from intertidal alluvial muds.
- Geological contrast and variety along the coastline provided by Sheppey, a long, low island rising from a stretch of very flat marsh along the Swale Estuary in Kent with low, steep clay cliffs facing towards Essex, and Mersea Island in the Blackwater Estuary in Essex.
- Coastline of major geomorphological interest for its coastal processes. Accretion of material carried by the sea from the north recharges intertidal coastal habitats, which are subject to coastal squeeze from rising sea levels.
- Open grazing pastures patterned by a network of ancient and modern reed-fringed drainage ditches and dykes, numerous creeks and few hedges or fences, with tree cover a rarity.
- Traditional unimproved wet pasture grazed with sheep and cattle combined with extensive drained and ploughed arable land protected from floods by sea walls, with some areas of more mixed agriculture on higher ground.
- Strong feelings of remoteness and wilderness persist on extensive salt marshes, mudflats and reclaimed farmed marshland, which support internationally important plants, invertebrates and populations of breeding and overwintering birds, notably overwintering Brent geese.
- Open mosaic habitats on brownfield sites support nationally important invertebrate assemblages and key populations of rare invertebrate species.
- Distinctive landmarks of coastal military heritage including Napoleonic military defences, forts and 20th-century pillboxes.
- Some of the least settled parts of the English coast with numerous small villages and hamlets on higher ground and marsh edges reflecting medieval patterns and the coastal economy.
- Highly urbanised areas within London and on marsh edges subject to chaotic activity of various major developments including ports, waste disposal, marine dredging, housing regeneration, mineral extraction and prominent power stations plus numerous other industry-related activities.
- Increasing development pressures around major settlements and especially towards London, with urban, industrial and recreational sites often highly visible within the low-lying marshes.
- Major historical and current transport link to Inner London provided by the River Thames, with an extensive network of road and rail bridges spanning its reaches within the city.

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## Greater Thames Estuary today

The Greater Thames Estuary NCA follows the banks of the Thames as it extends from East London, through the activity of urban life and major industrial developments, and along the predominantly remote and wild coastlines of Essex and North Kent into the North Sea. As the Thames drains out to the sea the city gradually loses its hold and the estuary widens into a landscape of shallow creeks, drowned estuaries, mudflats and broad tracts of tidal salt marsh and reclaimed grazing marsh where the extensive open spaces are dominated by the sky and the pervasive presence of water.

The NCA is a predominantly flat, low-lying, narrow, deeply indented strip of soft coastline. It forms the eastern edge of the London Basin, and the shape of its branching estuaries is determined by the glacial and fluvial sands and gravels that overlie London Clay. The confined principal London Basin Chalk aquifer, which underlies the eastern most part of the NCA as it stretches into London, is overlain by Tertiary deposits of Thanet Sands which provide a hydrological continuity with the Chalk. Drained loamy soils derived from intertidal alluvial muds provide fertile, productive land. Contrast and variety along the coastline is provided by low islands such as Sheppey, which rises from a stretch of very flat marsh along the Swale Estuary in Kent and has low, steep clay cliffs facing towards Essex, and Mersea Island in the Blackwater Estuary in Essex. Accretion of material carried by the sea from the north occurs along the coast, although the marshes in front of sea defences are subject to loss from coastal squeeze due to rising sea levels. The coastline is of major geomorphological interest for the study of estuarine and coastal processes. The NCA also contains important geological sites with fossiliferous deposits of London Clay and Pleistocene sediments.

Several of these sites are of importance both nationally and internationally as type sites for fossils and archaeology.

The coastal landscape mainly consists of a maze of winding, shallow creeks, drowned estuaries, mudflats and broad tracts of tidal salt marsh with sand and shingle beaches along the coast edge. The relatively permanent, branching, meandering creeks which dissect the salt marshes fill and empty with the tide and provide an interesting temporal variation within the marsh landscape. The area holds an extensive tract of important coastal habitat and this is reflected in the vast majority of its coastline and estuaries being



Industry is highly visible in the low-lying reclaimed grazing marsh on the Isle of Grain in Kent.

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designated as a Ramsar site and the Essex Estuaries as a Special Area of Conservation. The ebb of the tide uncovers large areas of mudflats, with shingle and shell banks and offshore islands also occurring in the intertidal zone, while large tracts of salt marsh (the most extensive of any NCA) occur above the intertidal range in front of sea defences. Behind the sea walls are large areas of reclaimed grazing marsh and its associated fleet-and-ditch systems. The salt marsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates, and the surrounding rich mosaic of terrestrial habitats supports nationally rare plants and invertebrates.

The NCA is of national importance for its flower-rich and open sward brownfield habitats that have developed on post-industrial sites, particularly in south Essex, the Colchester area and the north Kent coast, including Canvey Wick Site of Special Scientific Interest. These scarce open mosaic habitats support nationally important invertebrate assemblages and key populations of rare species, including the brown-banded carder bee and shrill carder bee.

The Estuary is of international importance for bird species and large swathes of its semi-natural coastal habitat are designated as a Special Protection Area. Hundreds of thousands of wintering waterfowl – including grey plover, dunlin and black-tailed godwit – provide a birdwatching spectacle as they add movement and variety to the open landscape. The estuary also provides some of the best breeding sites for rare wetland birds in southern England, including avocets and marsh harriers. The estuary is notable for its overwintering population of dark-bellied Brent geese, which rely on the surrounding arable farmland as a food source.

Commercial arable production is the dominant type of agriculture here following the conversion of much of the grazing marsh to arable during the second half of the 20th century. Hedgerows are absent from the large, rectilinear fields, with open pastures grazed with sheep and cattle patterned by a network of ancient and modern reed-fringed drainage ditches and dykes. Some areas of more mixed agriculture occur on higher ground. Trees are scarce within the open landscape, and are largely restricted to pockets of higher land surrounding isolated farms and churches and larger settlements along the marshland fringe.

The NCA includes some of the least settled parts of the English coast, though there are also numerous small villages and hamlets located on higher ground and on the edge of the marshes, reflecting medieval patterns and a traditional coastal economy. The local vernacular is predominantly of red brick and weatherboarded houses, including a large number of pre-1750s buildings. Nucleated villages occur, but the historic settlement pattern was largely dispersed with small hamlets, isolated farmsteads and church/manorial hall complexes providing focal points. Some settlements, such as Clacton, Southend and Frinton, have developed as popular seaside resorts.

Industry and its infrastructure – including waste disposal and mineral extraction sites, transport routes, ports and prominent power stations – and urban development, including housing and caravan sites, now occupy what are often highly visible sites within the low-lying marshes. The NCA encompasses the highly urbanised areas alongside the River Thames in East London, including the Isle of Dogs development, East and West Ham, and London City Airport. The historical East End of London, which is an especially busy and varied part of the nation's capital, provides a direct contrast to

the overriding sense of isolation of the estuary marshes and farmland. Large areas of marsh still exist within London, at Rainham and Crayford, and these provide important areas of tranquillity and recreation within the highly populated and urban parts of the NCA. Links to the sea are present throughout in the dynamic ebb and flow of the tidal waters of the Thames which, along with the busy movement of a range of vessels and the large and varied bird population, adds movement to the landscape.

Development is occurring in the NCA, especially in the west around London, directed by initiatives such as the Thames Gateway. Existing urban areas are being regenerated and new industry and housing constructed. Major port developments and other proposed nationally important infrastructure projects may further impact on character. A strategic approach to green infrastructure has been taken with initiatives such as the All London Green Grid, Greening the Gateway Kent and Medway, and Essex Green Grid guiding the development of a network of green infrastructure throughout the NCA. National trails along both sides of the estuary provide recreational opportunities and green infrastructure links from London along the Thames and out into the rural landscape. Heavy recreational use of estuary waters and beaches occurs in some more accessible areas of the NCA.

Historic associations are rich within the landscape and reflect the longstanding importance of the estuary as a main access point into London. They include rare Neolithic causeway enclosures, bronze-age funerary monuments, iron-age defended enclosures, and most notably the prominent military associations along the coastline such as Napoleonic military defences (the Martello towers), a number of distinctive forts and 20th-century pillboxes.

Charles Dickens used Cooling Marshes on the North Kent coast as the setting for the beginning of *Great Expectations* and his evocative description of the marshes, written 150 years ago, still holds true today: "... the dark flat wilderness beyond the churchyard, intersected with dykes and mounds and gates, with scattered cattle feeding on it, was the marshes; and that the low leaden line beyond, was the river; and that the distant savage lair from which the wind was rushing, was the sea..."



The Queen Elizabeth II Bridge joining the M25 as it crosses the River Thames at Dartford, seen from Rainham Marshes.



## Statements of Environmental Opportunity

**SEO 1: Maintain and enhance the expansive, remote coastal landscape – with its drowned estuaries, low islands, mudflats, and broad tracts of tidal salt marsh and reclaimed grazing marsh – maintaining internationally important habitats and their wildlife, and underlying geodiversity, while addressing the impacts of coastal squeeze and climate change and considering dynamic coastal processes.**

**For example, by:**

- Responding to the threat of rising sea levels due to climate change by identifying areas for managed realignment of coastal defences where appropriate, creating new intertidal habitats to mitigate for any losses caused by coastal squeeze, while maintaining natural coastal processes.
- Effectively managing the mosaic of coastal, freshwater and terrestrial habitats to maintain their biodiversity value, while seeking opportunities to re-link fragmented habitats to create a robust wildlife network with enhanced adaptation to climate change.
- Protecting intertidal and subtidal habitats to maintain their importance for marine wildlife.
- Supporting and ensuring the continuation of the natural dynamic coastal processes of accretion and erosion that shape the estuary, encouraging natural regeneration of intertidal habitats.
- Maintaining areas of intertidal habitat as a buffer between wave action and sea defences to reduce flooding and protect inland areas.
- Continuing to support, monitor and research coastal geomorphological processes to improve our understanding and inform future coastal management decisions.
- Improving sustainable public access to areas of biodiversity, geological and geomorphological interest, incorporating interpretation to raise awareness, increase understanding and enhance visitor enjoyment, while protecting habitats and species that are vulnerable to disturbance.
- Protecting the existing designated area network and working in partnership with existing local projects, initiatives and organisations, including the Nature Improvement Area, to deliver integrated, effective conservation management on a landscape scale.
- Enabling carbon storage provided by extensive areas of salt marsh, reedbeds, mudflats and grazing marsh by maintaining their good condition through sustainable management.
- Recognising the need for, and identifying sites for the creation of, compensatory habitat to mitigate for losses identified in Shoreline Management Plans including TE2100 (the Environment Agency's strategic plan for managing flood risk in the Thames Estuary).
- Supporting projects and programmes that seek to secure the future of species limited to and closely associated with the marshland, coastal and estuarine habitats of the area, for example the recovery programme for the pedunculate sea-purslane.

**SEO 2: Work with landowners and managers to incorporate measures to improve biodiversity, geodiversity, pollination, water quality, soil quality and climate adaptation and to prevent soil erosion in this important food-providing landscape, while maintaining its historic character.**

**For example, by:**

- Working with the local farming community to sustainably manage the agricultural landscape, safeguarding future food production and the long-term viability of agriculture and yields, while enhancing key ecosystem services.
- Working with the fishing industry to ensure the sustainable future management of fishing and shellfish grounds.
- Working with the farming community to ensure the sustainable management of internationally important grazing marsh habitat, and the sympathetic management of arable land to benefit wildlife, including the use of field margins, conservation headlands, and pollen and nectar margins for pollinator species.
- Ensuring that land outside designated areas used by bird populations for foraging and roosting is adequately protected and managed.
- Improving the area for important pollinators, including rare bumblebee species, by sympathetic habitat management, habitat creation and strategic conservation of flower-rich brownfield sites.
- Maintaining water availability by using integrated water and land management practices to slow run-off and increase infiltration to aquifers by reducing soil compaction and increasing soil organic matter on agricultural land, and using targeted drainage management where possible to increase water availability in periods of low rainfall.
- Protecting aquifer water quality by adopting land management practices and integrated water management policies to minimise risks through pollution, contamination, saline intrusion and run-off.
- Increasing carbon storage capacity by creating new wetland habitats including reedbeds, and by increasing organic matter in soils using land management practices such as including fallow within rotations, overwintering stubbles, and pollen and nectar strips.
- Managing the network of drainage ditches and drains in flood plain areas to provide effective floodwater management during storm events, thereby decreasing flood risk while improving the habitat for freshwater species.
- Creating permanent buffer strips along ditches and watercourses to reduce soil erosion and help prevent deterioration in water quality caused by high nutrient levels by slowing run-off and capturing sediment.
- Conserving the historic character of the area, and features of heritage interest, including the ancient patterns of reed-filled drainage ditches that crisscross reclaimed farmland and the medieval settlement patterns of isolated farms and villages on higher land.

**SEO 3: Ensure that the tranquil and remote character of the estuary is maintained by conserving and enhancing important coastal habitats and distinctive historic and geological features, while providing increased opportunities for recreation and enjoyment of the landscape.**

**For example, by:**

- Conserving the wild and remote character of the estuary by maintaining the extent and quality of the semi-natural coastal habitats and creating new habitat where feasible.
- Protecting, interpreting and promoting heritage and archaeological assets and, where appropriate, increasing access to the distinctive military landmarks along the coastline, reflecting the historical importance of the area in protecting London from invasion by the sea, connecting communities with their local heritage and encouraging tourism.
- Encouraging opportunities for people to connect with the natural landscape and its wildlife through local nature reserves, volunteering, working with local schools and community groups, and activities such as birdwatching and visiting the internationally important coastal habitats of the estuary.
- Encouraging sustainable recreational opportunities within the estuary by encouraging access to characteristic features of the landscape, including internationally important coastal habitats and species, estuary waters and historic assets, and incorporating interpretation to raise awareness, increase understanding and enhance visitor enjoyment.
- Encouraging the development of new public rights of way networks where appropriate, to connect urban communities to rural areas and increase recreational opportunities.
- Managing increasing visitor pressure by promoting the sustainable

recreational use of appropriate areas while protecting fragile habitats, species, geological and historic features and taking recreation disturbance issues into account.

- Conserving and interpreting archaeological earthworks and sub-surface archaeology, while recognising the potential for undiscovered remains.
- Continuing to research, monitor and record coastal geomorphological processes that shape the estuary, to improve our understanding and inform future management.
- Protecting and providing access to and interpretation of important geological sites, including exposures of fossils, as a source of recreation.



Tollesbury saltings in the Blackwater Estuary in Kent.

**SEO 4: Encourage a strategic approach to development that is informed by and makes a positive contribution to local character, incorporates green infrastructure which provides ecosystem services where they are needed most, and promotes recreation and addresses climate change, while maintaining important open mosaic and coastal habitats, and historic and geological features.**

**For example, by:**

- Ensuring that local development plans include the sustainable management of water resources and promote measures to reduce adverse impacts on water quality in the future, including the use of sustainable urban drainage systems and sewage treatment options, reducing nutrients from diffuse pollution to improve water quality and increasing groundwater recharge.
- Planting sustainably managed broadleaved woodland, and potentially miscanthus, to screen new and existing urban and industrial developments and to help protect the tranquillity of the estuary, while taking care not to impact on its open, expansive views.
- Ensuring that new developments adequately incorporate features to make a positive contribution to biodiversity and climate change, including increasing the areas of green space in more developed parts of the estuary through initiatives such as Green Grids.
- Conserving and managing disused mineral and landfill sites to benefit biodiversity and increase recreational opportunities, while retaining important biodiversity and geological features.
- Raising awareness of the importance of brownfield sites in the Thames Gateway for biodiversity, and conserving key open mosaic habitats and species through site protection, mitigation and habitat creation.
- Limiting development, including increases in light and noise pollution, in more remote parts of the NCA that currently score highly for tranquillity.
- Implementing sustainable Shoreline Management Plans to reduce flood risk from climate change, including managed realignment schemes, identifying and safeguarding areas of functional flood plain needed for strategic flood storage in the Thames Estuary in local development plans, ensuring a catchment-scale approach to flood risk management.
- Recognising the need for, and identifying sites for the creation of, compensatory habitat to mitigate for losses identified in Shoreline Management Plans including TE2100 (the Environment Agency's strategic plan for managing flood risk in the Thames Estuary).



Jaywick holiday plotland development in Essex.

**Appendix 5**

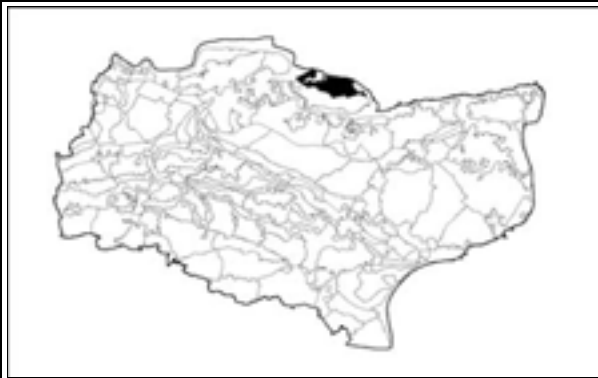
Extracts from The Landscape Assessment of Kent, 2004

# The Landscape Assessment of Kent

October 2004



## NORTH SHEPPEY



The landscape of North Sheppey has a particularly distinctive character brought about mainly as a result of its coastal island situation. A sense of remoteness is accentuated by the physical separation of the island from the mainland by the Swale and is strongest in the more rural eastern part of the island. This is coupled with a pervasive sense of exposure which results from the lack of shelter and elevated, coastal position. The atmosphere can be both invigorating and bleak, depending upon weather conditions.

Geology has a significant influence on the character of North Sheppey, which is underlain by a belt of London Clay giving it a distinctive, elevated relief above the surrounding alluvial marshes. The ground rises quite rapidly from the marshes to the south and west and forms an area of complex topography before dropping steeply to the sea on its northern side. These slumped, clay cliffs are of significant geological and landscape interest. At its western end the landform of Furze and Barrows Hill, behind which the ground drops down to an area of low-lying alluvium which is also included within the local character area.

Traditionally, land use was predominantly pasture with occasional orchards but the area is now mainly under arable cultivation. The combined effects of Dutch Elm Disease, coastal exposure and the removal of hedgerows and orchards have all contributed to a very sparse covering of trees which gives the landscape an open and exposed character. Pockets of scrub woodland (such as on Furze Hill and around Brambledown), occasional shelterbelts of poplar around existing or former orchards and overgrown hedgerows (mainly in sheltered valleys within the more complex relief to the north) provide some localised enclosure and shelter.

Urban and industrial development to the north-west has had a significant influence on landscape character and much of the development is visually exposed and poorly integrated. An isolated pocket of remnant marshland separates Sheerness from Minster and is mostly under grazing management, although under extreme pressure from the influence of urban/industrial expansion. Elsewhere, settlements, hamlets and farms mostly retain a predominantly rural character, but some insensitive residential and holiday development is poorly integrated and has an intrusive, sometimes urbanising effect.

Many wildlife habitats have been lost to intensive agriculture or urban/industrial development but important areas of remnant marshland between Sheerness and Minster provide a suitable habitat for birds, including waders, wildfowl and raptors, the presence of which contribute significantly to the more 'natural' landscape qualities of these areas. These marshes are included within the North Kent Marshes Environmentally Sensitive Area, and Minster Marshes and parts of the cliffs along the northern shoreline are designated as non-statutory sites of nature conservation importance.

This area has strong associations with maritime and naval history, in particular the naval towns of Sheerness and Queenborough. Relics of the medieval salt making industry in this area can still be found today

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# NORTH SHEPPEY

## PHOTOGRAPH



## CHARACTERISTIC FEATURES

Island situation, exposed, prominent hills and cliffs above alluvial marshes. Geologically significant. Scrub on hills. Open, intensively farmed land on lower slopes. Denuded landscape. Remnant marshland-creeks and ditches. Prominent dev. and industry. Caravans/chalets.

## LANDSCAPE ANALYSIS

### Condition

The north of the island supports much arable cultivation and very little tree, hedgerow or other semi natural habitat. The marshes have some ecological interest but also attract amenity and suburban use such as golf course and pony paddocks, therefore despite some sites of note, the area does not function as a strong ecological network. The location and form of traditional hilltop farms are obscured by residential development. In general, built development has a negative impact. Rural heritage features of hedged field boundaries and woodland are poor-this area has suffered a significant loss of tree cover due to Dutch elm disease.

### Sensitivity

Views are open across the exposed hillside and over the flat marshland. The varied land form is apparent in the view and there is very little tree cover. Visibility is therefore high. Settlement is overwhelmingly recent in form. There are many new residential areas, and these urban edges are very visible in the landscape view. Although there are notable heritage sites such as the Minster, the time depth is not apparent in the rural landscape; the most characteristic features are of recent origin. The sensitivity of this area is considered to be moderate.

## LANDSCAPE ACTIONS

Restore integrity to the remaining farmland: create narrow cross-contour shaws linked to wooded ridge tops.  
 Restore woodland to hilltops, and hedgerow with mature standards to the road which delineates the base of the slopes and the edge of the marshes.  
 Create urban edges which promote intermittent views of built development beyond.  
 Create urban planting to soften wide views of hillside developments  
 Restore open views across the marshland.  
 Create and restore ecological networks within the low-lying areas in accordance with inherent drainage patterns

## CONTEXT

Regional: Thames Gateway

### Condition

good	REINFORCE	CONSERVE & REINFORCE	CONSERVE
moderate	CREATE & REINFORCE	CONSERVE & CREATE	CONSERVE & RESTORE
poor	CREATE	RESTORE & CREATE	RESTORE
	low	moderate	high

### Sensitivity

## SUMMARY OF ANALYSIS

Condition Very Poor.

Pattern of elements:	Coherent.
Detracting features:	Many.
Visual Unity:	Interrupted.
Cultural integrity:	Variable.
Ecological integrity:	Weak.
Functional Integrity:	Weak.

Sensitivity Moderate.

Distinctiveness:	Characteristic.
Continuity:	Recent.
Sense of Place:	Weak.
Landform:	Apparent
Extent of tree cover:	Open
Visibility:	High.

## SUMMARY OF ACTIONS

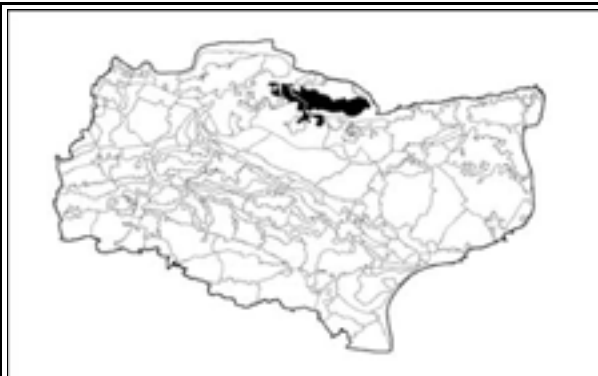
### RESTORE AND CREATE.

Restore woodland to ridge tops  
 Restore mature standards and hedgerow to the highway  
 Encourage urban planting within built development  
 Create urban edges  
 Restore the prominence of heritage features in the view  
 Restore and simplify selected open views on the marshland  
 Restore ecological networks within the remnant marshland. Delineate edges between marshes and higher land by enhancing inherent characteristics

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## SWALE MARSHES



The Swale estuary separates the Isle of Sheppey from the mainland and is flanked on either side by extensive coastal marshes. Despite localised differences in landscape character, the essential marshland character prevails throughout, epitomised by open, flat grazing land with broad skies, few landscape features and an overriding sense of remoteness, wildness and exposure. The Swale Marshes have a predominantly agricultural and particularly tranquil, unspoilt character in contrast with the Medway and Thames Marshes which are more heavily influenced by industry.

Landform and geology have a profound influence on the character of the marshes which, having been formed from marine alluvial deposits, have a distinctively flat relief. Localised outcrops of chalk or London Clay produce landform features (e.g. the Isle of Harty) which have a prominence out of proportion to their modest relief.

A thin ribbon of tidal saltmarsh persists along the outer edges of the Swale Marshes but the traditional landcover of this area is coastal grazing marsh. The rough grassland of the grazing marshes is patterned by a complex system of natural and man-made drainage dykes and fleets which provide a water supply for stock. There is virtually no tree cover and the landscape is generally devoid of features, placing a greater significance on the presence of grazing animals and wetland birds.

More recently, extensive areas of the Swale grazing marshes have been converted to arable cultivation. This results in the loss of the characteristic drainage patterns, removing livestock and wildlife interest and simplifying the textures and colours of the marshland landscape. Localised industrial development has had a direct impact on the marshes in certain areas (e.g. Kemsley) but exerts a much wider influence in long-distance views across the flat, open marshes in certain parts of the Swale.

The grazing marshes, dykes, saltmarshes and mudflats of the Swale are designated as a site of special scientific interest and provide a habitat for internationally significant numbers of wetland birds, qualifying for designation as a wetland of international significance under the Ramsar Convention and under the EC Birds Directive. Extensive areas of marshland on Sheppey are managed by nature conservation organisations, including the RSPB and English Nature, which owns and manages part of the area as a National Nature Reserve.

There is evidence of Iron Age and Roman occupation on the southern part of Sheppey, but this would appear to be fairly sparse. There is also evidence of extensive Roman salt workings and pottery industry at Chetney Marshes whilst the Medieval period the eastern parts of Sheppey became important for their salt workings, the remains of which can still be seen today. St. Thomas Church on the Isle of Harty dates from 1200 and is considered to be the remotest church in Kent.

[next >>](#)

# SWALE MARSHES

## PHOTOGRAPH



## CHARACTERISTIC FEATURES

Coastal marsh with isolated low hilly outcrops.  
 Remote, wild and isolated. Fleet, creeks and marshland vegetation. Grazing animals and birds.  
 Extensive areas of cultivated marsh, few features.  
 Intrusive buildings and industry, infilling of creeks/ditches.

## LANDSCAPE ANALYSIS

### Condition

The coastal and cultivated marsh is strongly unified with a recurrent irregular pattern of open grassland, ditches and wetland. Visual detractors such as the development at Ridham Dock are generally large scale but appear few in the wide view and are mainly due to unsympathetic farm buildings, overhead cables or the industrial and urban skyline. The marshes themselves remain tranquil and inaccessible. The network of ditches, creeks, marsh and wetland form a notable ecological base which is linked with other important natural habitats in North Kent. Settlement is limited to historic locations on small hills, although the built form generally has a moderately negative impact. The general condition of the area is very good.

### Sensitivity

Views are extremely wide across the open landscape and the extent of the flat landscape is a very dominant feature. Visibility is therefore considered to be very high in this area. Species associations within the natural habitat are recognised as unique or rare features. In addition, the structural form and existence of the island crossing is a locally distinctive and uniquely significant feature within the landscape. Other characteristics such as the landform of reclaimed marshland, are historic; it is their extent which contributes to local distinctiveness.  
 High visibility and the high importance of natural habitats combine to make this an area of very high sensitivity.

## LANDSCAPE ACTIONS

Conserve the openness, inaccessibility and tranquillity of the landscape, resisting the introduction of any additional built-form to the view.  
 Retain existing long views and existing undeveloped skyline.  
 Conserve the pattern of sparse settlement, maintaining or reducing the visual emphasis of built form within the landscape area and maintaining areas of undeveloped land intact.  
 Maintain the simplicity of the landscape and of forms within the landscape.  
 Conserve the importance of existing unique and locally distinctive structures.  
 Conserve natural habitats by supporting the sensitive management of ditches and grassland and promoting the value of these within the island.

## CONTEXT

Regional: Thames Gateway

## Condition

good	REINFORCE	CONSERVE & REINFORCE	CONSERVE
moderate	CREATE & REINFORCE	CONSERVE & CREATE	CONSERVE & RESTORE
poor	CREATE	RESTORE & CREATE	RESTORE
	low	moderate	high

## Sensitivity

## SUMMARY OF ANALYSIS

Condition	Very Good.
Pattern of elements:	Unified.
Detracting features:	Few.
Visual Unity:	Strongly Unified.
Cultural integrity:	Variable.
Ecological integrity:	Moderate.
Functional Integrity:	Strong.

## Sensitivity

Very High.

Distinctiveness:	Unique/Rare.
Continuity:	Historic.
Sense of Place:	Strong.
Landform:	Dominant.
Extent of tree cover:	Open.
Visibility:	Very High.

## SUMMARY OF ACTIONS

### CONSERVE.

Conserve the existing sparse settlement patterns  
 Conserve existing open areas intact and retain long views  
 Conserve natural and cultivated grassland habitats  
 Conserve saltmarsh

[previous <<](#)

**Appendix 6**

Extracts from The Swale Landscape Character and Biodiversity Appraisal, 2011



# Swale Landscape Character and Biodiversity Appraisal



Supplementary Planning Document September 2011

At the national level, the Countryside Agency (now Natural England) have mapped and described regional character areas across the country as part of their Countryside Character Programme. This map is titled 'The Character of England - landscape, wildlife and natural features'. It identifies seven National Character Areas that fall wholly or partially within Kent:

- Greater Thames Estuary
- North Kent Plain
- North Downs
- Wealden Greensand
- Low Weald
- High Weald
- Romney Marsh

These areas are coincident with the Natural Areas described in the Ecology section (Figure 7).

Three of these national areas define the character of Swale Borough. The northern part of the Borough, generally including Sheppey and the marshland, falls within the Greater Thames Estuary. South of this the North Kent Plain forms the main agricultural and fruit belt across the Borough. Finally the dip slope of the North Downs characterised by mostly arable land and pasture forms the southern part of the Borough.

At the county level Kent County Council have further refined and subdivided these character areas (Figure 12). The following character areas fall wholly or partly within Swale Borough:

- North Sheppey
- Swale Marshes
- Fruit Belt
- Chatham Outskirts: Mid Kent Downs
- Bicknor: Mid Kent Downs
- Challock: Mid Kent Downs
- Faversham Fruit Belt
- Eastern Swale Marshes
- Eastern Fruit Belt
- The Blean

A summary of the key characteristics of each of these areas is given below:

## North Sheppey

### Key Characteristics:

- Island situation, exposed, prominent hills and cliffs above alluvial marshes
- Geologically significant
- Scrub on hills
- Open, intensively farmed land on lower slopes
- Denuded landscape
- Remnant marshland-creeks and ditches
- Prominent development and industry
- Caravans and chalets

## Swale Marshes

### Key Characteristics:

- Coastal marsh with isolated low hilly outcrops
- Remote, wild and isolated
- Fleet, creeks and marshland vegetation
- Grazing animals and birds
- Extensive areas of cultivated marsh, few features
- Intrusive buildings and industry, infilling of creeks and ditches

## Fruit Belt

### Key Characteristics:

- Rural/agricultural landscape
- Complex fruit, hops, pastoral and arable divided by small woodlands
- Small scattered villages and farms
- Rolling landscape with distinct valleys
- Large pockets of flat, open farmland, especially in coastal areas
- The M2 and A2, ribbon development and urban features

## Chatham Outskirts: Mid Kent Downs

### Key Characteristics:

- Large arable plateau and steep, rolling valleys, scarp slopes
- Patchwork of small pastures, grass and scrub
- Derelict orchards, few hedges
- Urban-edge influence
- Long views to the industrial edge

## Bicknor: Mid Kent Downs

### Key Characteristics:

- Chalk ridge with wide arable fields contained by dense belts of woodland
- Views across Swale Estuary
- Small sunken lanes, scattered villages
- Historic parkland, hops and orchards

## Challock: Mid Kent Downs

### Key Characteristics:

- Open arable plateau
- Sweeping landform with few boundaries and long views
- Large coppice wood at Challock Forest
- Orchards and trimmed hedgerows between Perry Hill and Challock

## Faversham Fruit Belt

### Key Characteristics:

- Gentle slopes and undulating farmland
- Hop gardens, orchards and tall shelterbelts
- Rolling, open arable fields, little woodland
- Pine clad feature of Perry Hill

## Eastern Swale Marshes

### Key Characteristics:

- Open, flat grazing land with broad skies, few landscape features and a strong sense of remoteness, wildness and exposure
- Extensive areas of traditional grazing marsh characterised by rough grassland
- Complex system of natural and man-made drainage dykes, pools and fleets

## Eastern Fruit Belt

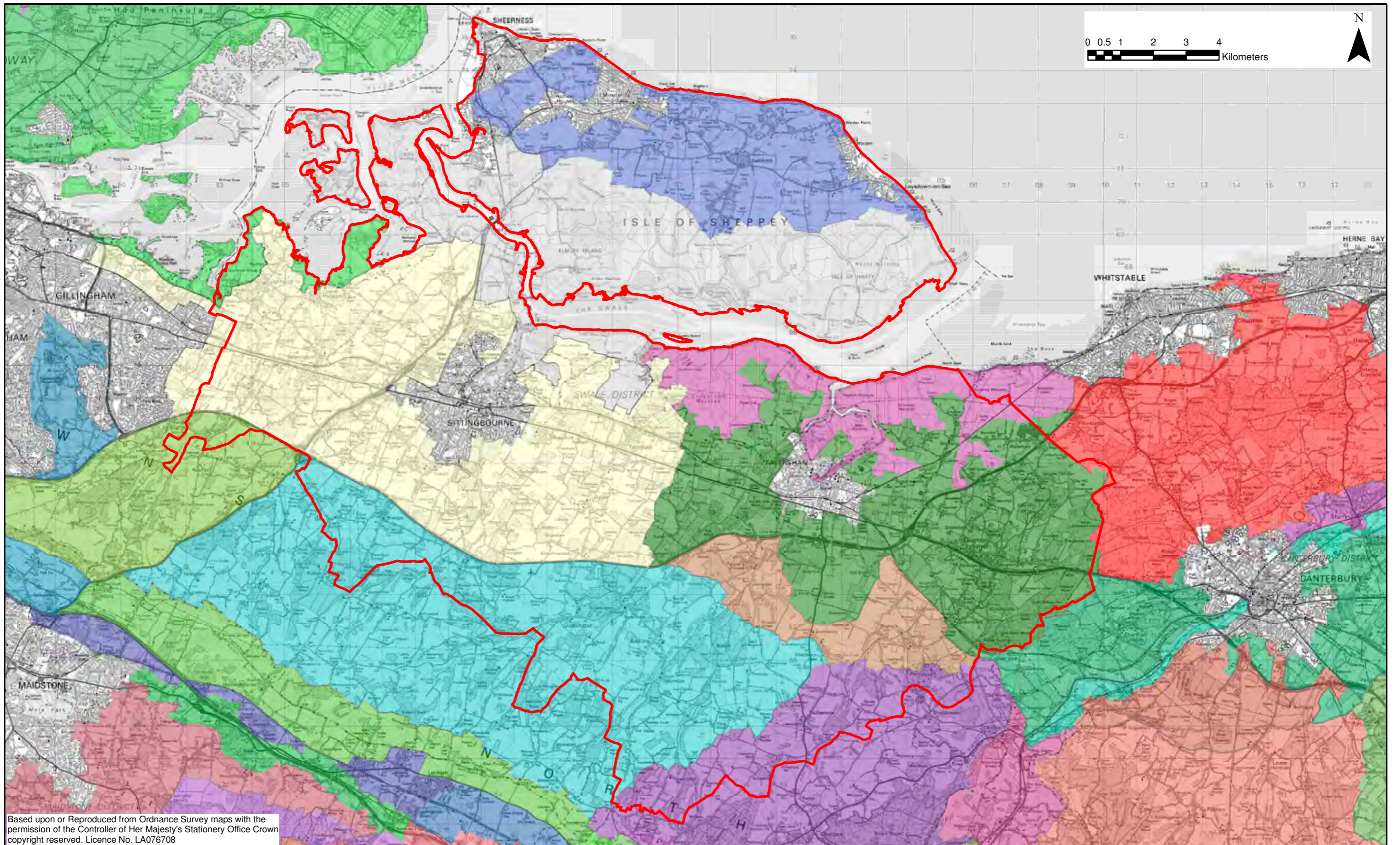
### Key Characteristics:

- Elevated landform features of hills and ridges
- Freely drained and fertile soils
- Predominantly rural, agricultural landscape characterised by complex and highly structured landscape pattern of orchards, shelterbelts, fields of arable, pasture and horticultural crops, and blocks of woodland
- Small scattered villages and farm complexes

## The Blean

### Key Characteristics:

- Densely wooded, rounded hilltops with sparse nucleic settlements and few roads within the woodland
- Flat coastal plain
- Haphazard seaside and leisure development
- Neglected pasture near the coast
- A high proportion of unfarmed land

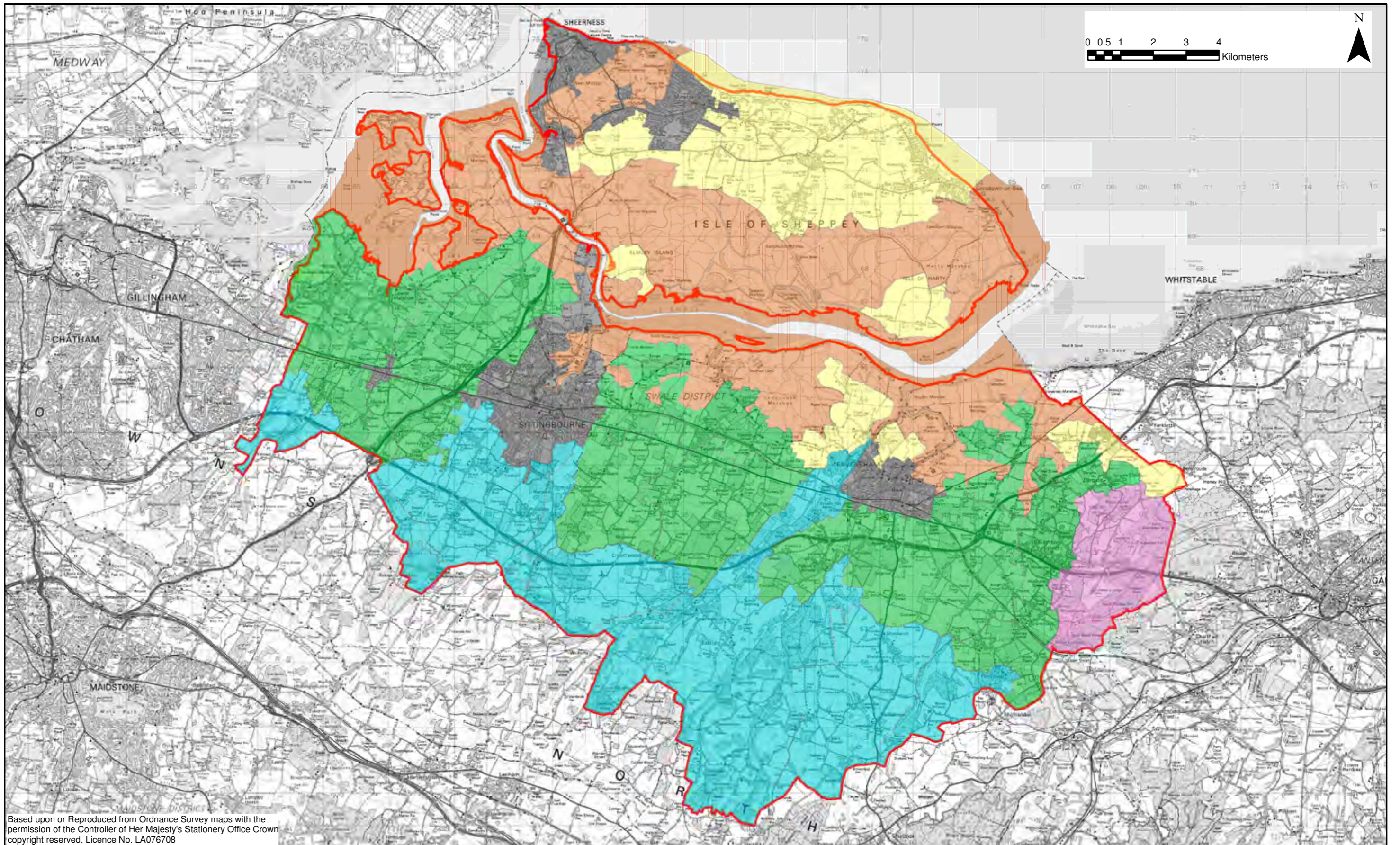


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**Legend**

- Swale Borough Boundary
- Bicknor: Mid Kent Downs
- Eastern Fruit Belt
- Fruit Belt
- North Sheppey
- Chalcoek: Mid Kent Downs
- Eastern Swale Marshes
- The Blean
- Chatham Outskirts: Mid Kent Downs
- Faversham Fruit Belt: Mid Kent Downs
- Swale Marshes

Figure 12: County Wide Landscape Character Areas  
Taken from Landscape Assessment of Kent, Kent County Council 2004



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**Legend**








Type	
	Swale Borough Boundary
	Urban Areas
	Marshland Landscapes
	Fruit Belt Landscapes
	Dry Valleys and Downs
	Woodland Landscapes
	Clay Farmlands

Figure 13: Landscape Character Types

## Introduction to Landscape Character Areas

The field and desk studies have identified five broad landscape types (Figure 13) and forty-two local character areas (Figure 14). It should be noted that whilst the current guidance suggests that smaller scale landscape character areas should nest within larger scale landscape character areas, the landscape character areas defined within Swale Borough do not nest within all of the county scale areas defined within the Landscape Assessment of Kent (Jacobs Babbie, 2004). This is because the character areas in Landscape Assessment of Kent for Swale Borough are derived from earlier studies. These studies are The Kent Downs Landscape (Countryside Commission 1995), the Kent Thames Gateway Landscape Character Assessment (Cobham Resource Consultants 1995) and the Landscape Assessment of the Eastern Swale Marshes and Eastern Fruit Belt (1996). These assessments predate current LCA Guidance (2002) and, whilst judgements (condition, sensitivity and guidelines) made in LAK accord with the current guidance, the character areas that they are based upon were defined by these earlier assessments rather than based on the true character area boundaries. Across most of the Borough the Kent Downs AONB and Thames Gateway generally share the A2 as a common and artificial landscape character area boundary, whilst the Eastern Swale LCA was undertaken as a top up to cover the remainder of the Borough.

The landscape character areas within this report are identical to those identified in the previously adopted Swale Landscape Character Assessment and Guidelines (Jacobs Babbie, 2005). They are undertaken using the same methodology used in LAK (where areas were not pre-defined by earlier studies) and for a number of other district level studies within Kent, most notably Canterbury District where the character areas adjoin and are cross referenced where necessary.

There will always be some minor anomalies due to the different scales of national, regional and local character assessments. However as a general rule, assuming all were undertaken using the same version of guidance, the more local assessment will provide the greatest level of detail and accuracy. The landscape analysis (in terms of sensitivity, condition and guidelines) differs between the county scale Landscape Assessment of Kent, the Kent Downs landscape character areas and this appraisal because the areas are not the same and landscape analysis takes an average across the area in question.

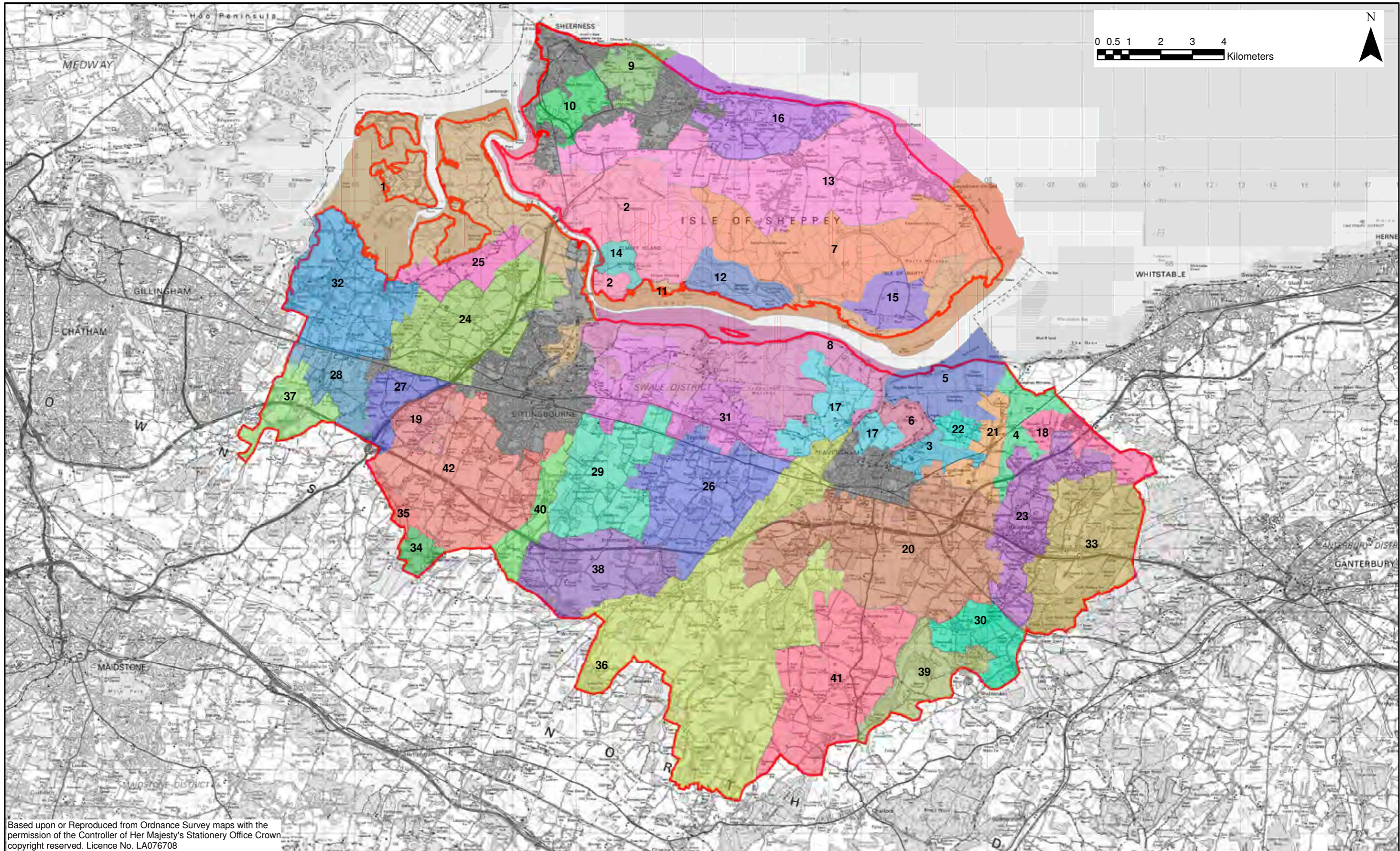
Landscape character areas do not necessarily stop along Borough boundaries, and usually extend across them. The relationship between the landscape character areas within Swale and landscape character areas within adjoining boroughs (where they have been published) has been considered in terms of boundary alignment to ensure consistency.

In the following sections the landscape character areas are described and their key characteristics noted. Descriptions of landscape character areas are grouped alphabetically within the document in accordance with landscape types. An analysis is undertaken to identify the condition and sensitivity of the landscape and following the methodology, guidelines for each area are proposed. It should be noted that changes in the natural landscape are often gradual, relating closely to changes in geology and soil type. It is therefore common to find some characteristics of one area overlapping into another.

Not all areas within a landscape character area exhibit all the characteristics of that area and it is usual to have some pockets with very few distinctive features. Often this is due to changes in land use that have resulted in the loss of landscape features, or the addition of features not typically associated with that area. The proximity of the built environment often affects the condition of the landscape, particularly on the boundaries where pressures are greatest. The landscape character areas therefore identify common characteristics across an area rather than grouping areas that are identical. Where there are marked changes across an area these are described and, where appropriate, different guidelines provided.







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Legend					
	Swale Borough Boundary		Urban Areas		
Character Areas					
	1. Chetney and Greenborough Marshes		9. Minster Marshes		14. Elmley Island
	2. Elmley Marshes		10. Sheppey Court and Diggs Marshes		15. Isle of Harty
	3. Goodnestone Grasslands		11. South Sheppey Saltmarshes and Mudflats		16. Minster and Warden Farmlands
	4. Graveney Grazing Lands		12. Spitend Marshes		17. Stone Arable Farmlands
	5. Graveney Marshes		13. Central Sheppey Farmlands		18. Waterham Clay Farmlands
	6. Ham Marshes		14. Elmley Island		19. Borden Mixed Farmlands
	7. Leysdown and Eastchurch Marshes		15. Isle of Harty		20. Faversham and Ospringe Fruit Belt
	8. Luddenham and Conyer Marshes		16. Minster and Warden Farmlands		21. Graveney Arable Farmlands
	9. Minster Marshes		17. Stone Arable Farmlands		22. Graveney Fruit Farms
	10. Sheppey Court and Diggs Marshes		18. Waterham Clay Farmlands		23. Hernhill and Boughton Fruit Belt
	11. South Sheppey Saltmarshes and Mudflats		19. Borden Mixed Farmlands		24. Iwade Arable Farmlands
	12. Spitend Marshes		20. Faversham and Ospringe Fruit Belt		25. Lower Halstow Clay Farmlands
	13. Central Sheppey Farmlands		21. Graveney Arable Farmlands		26. Lynsted Enclosed Farmlands
	14. Elmley Island		22. Graveney Fruit Farms		27. Newington Arable Farmlands
	15. Isle of Harty		23. Hernhill and Boughton Fruit Belt		28. Newington Fruit Belt
	16. Minster and Warden Farmlands		24. Iwade Arable Farmlands		29. Rodmersham Mixed Farmlands
	17. Stone Arable Farmlands		25. Lower Halstow Clay Farmlands		30. Selling Fruit Belt
	18. Waterham Clay Farmlands		26. Lynsted Enclosed Farmlands		31. Teynham Fruit Belt
	19. Borden Mixed Farmlands		27. Newington Arable Farmlands		32. Upchurch and Lower Halstow Fruit Belt
	20. Faversham and Ospringe Fruit Belt		28. Newington Fruit Belt		33. Blean Woods West
	21. Graveney Arable Farmlands		29. Rodmersham Mixed Farmlands		34. Bicknor Orchards
	22. Graveney Fruit Farms		30. Selling Fruit Belt		35. Deans Bottom
	23. Hernhill and Boughton Fruit Belt		31. Teynham Fruit Belt		36. Doddington and Newnham Dry Valleys
	24. Iwade Arable Farmlands		32. Upchurch and Lower Halstow Fruit Belt		37. Hartlip Downs
	25. Lower Halstow Clay Farmlands		33. Blean Woods West		38. Milstead and Kingsdown Mixed Farmlands
	26. Lynsted Enclosed Farmlands		34. Bicknor Orchards		39. Perrywood Hills and Dry Valleys
	27. Newington Arable Farmlands		35. Deans Bottom		40. Rodmersham and Milstead Dry Valley
	28. Newington Fruit Belt		36. Doddington and Newnham Dry Valleys		41. Sheldwich and Leaveland Farmlands
	29. Rodmersham Mixed Farmlands		37. Hartlip Downs		42. Tunstall Farmlands

Figure 14: Landscape Character Areas

## Key man-made landscape elements

### Historic buildings/settlements

Many villages of great charm and antiquity exist throughout the Borough. Their conservation is central to overall landscape character.

#### Guidelines:

- Ensure that proposals respect (but do not extend) the linear character of settlements and avoid the creation, expansion, or consolidation of more scattered farmsteads and cottages.
- Building materials, layout and style should reflect the local vernacular character. Landscape proposals should also reflect local character, using appropriate form, structure and species.
- The character area guidelines for planting and vernacular should be used, except where further more detailed guidance is available from Parish or Village Design Statements.

### Landmark buildings and historic parkland

Across the Borough are a large number of buildings that have become part of the landscape, frequently occupying isolated, elevated, or open aspects in the landscape, often visible over considerable distances. They may be reference points of past activities that remain only in fragmented pockets of the modern landscape. Examples include churches, sometimes standing aloof from the village, the unmistakable oast cowl viewed across fields or (rarely now) seen peaking above the hop garden or orchard, or perhaps isolated farmsteads, barns and mills, or the large country house sitting in its historic parkland.

#### Guidelines:

- Conserve and enhance landmark buildings and historic farmsteads, together with their setting and views and restore the visual and if possible, the historic integrity of historic parkland landscapes.
- Encourage the re – use of redundant barns and agricultural buildings. Have regard to ‘The Conservation of Traditional Farm Buildings, Planning and Development Guidelines No. 3’ (Swale Borough Council Development Services Department, 1993) and Planning Policy Statement 7: Sustainable Development in Rural Areas, 2004).
- At historic parkland sites:
  - Conserve and manage parkland and veteran trees for their biodiversity value and encourage new planting to maintain age diversity.
  - Hard landscaping details should be conserved with replacements in facsimile and in natural materials. New structures should contribute to the planned landscape and its setting.
  - Look for opportunities to revert from arable use to pasture and grassland and avoid the ploughing of grassland.
  - Retain ponds and wetland areas to enhance their visual and nature conservation functions.

## Generic Guidelines for development types

### All development

- Should submit site landscape assessments or statements, depending upon the size and type of development. These should provide an analysis of the site and its context and demonstrate how development has responded to the Swale Landscape Character Assessment and Guidelines.
- Should relate to settlement pattern – i.e. linear, clustered etc. Consider plot size and shape and the relationship of the buildings within the plot and to each other. Small-scale proposals are more likely to be sympathetic to landscape character.
- Should promote landscape, biodiversity and cultural benefits and provide links between urban and rural areas, in addition to recreation and access opportunities, which would constitute locally relevant examples of the multi - functional green infrastructure that is advised by the South East Green Infrastructure Framework.
- Landscapes that have a strong established landscape structure (e.g. field patterns with natural boundaries such as hedges, woodlands, shelterbelts, ditches etc) with a diverse mix of uses should, as a general rule, better accommodate change than simple landscapes with an open structure. Look for targeted opportunities to enclose most landscape types (i.e. create new natural connecting landscape structure), whilst avoiding the opening up of enclosed landscapes.
- Respect local vernacular and distinctiveness when considering massing, form, height, detail, colour and texture, blending innovation with tradition. Use materials in their traditional manner e.g. avoiding prefabricated flint panels.
- Minimise the number of new vehicular accesses and use minimum acceptable width. Access tracks/roads should relate to landform and field patterns, with materials appropriate to the locality.
- The re-use of, or grouping of buildings, is likely to have the least impact on the landscape, as opposed to the isolated positioning of buildings in exposed or prominent locations such as ridgelines or hilltops. Avoid: straight lines or regimented buildings on the settlement edge; extending the linear form of settlements; the creation, expansion, or consolidation of more scattered farmsteads and cottages.
- Protect settlement setting, important views and spaces and avoid intrusion onto ridgelines, prominent slopes, hillsides and tops, open fields and valley sides and bottoms.
- Avoid proposals that would impinge on the sense of undeveloped openness between settlements vulnerable to coalescence.
- Retain key landscape features – e.g. woodland, shaws, hedgerows, orchards, trees, watercourses and ponds. Where possible, extend and buffer key habitats from new developments and intensive agricultural practices..

- Within the Kent Downs AONB, refer to the suite of relevant guidance documents set out in the Bibliography.
- Refer to the Kent Design Guide 05/06 (Kent Design Initiative).

### Residential

- Generally avoid close board fencing or other suburban features such as walls, gates, lighting, bollards, block paving, concrete kerbs and ornamental planting. Provide the minimum acceptable width access and use timber gates, with a minimal driveway of (normally) bound gravel. Retain vegetation and make use of grass, hedgerow planting and existing natural features.
- Limit domestic curtilage extensions where settlements depend upon the surrounding field pattern, landscape form, cover, or boundary treatment, for their distinctiveness. Where extended, look for opportunities to re-instate traditional landscape features e.g. hedges and avoid over-suburbanising the garden with ornamental plants and structures.

### Commercial (including Agriculture, Tourism and Leisure) and Equestrian

- Avoid the use of chainlink, weldmesh, close board and other fencing and gates associated with urban industrial sites.
- Use neutral colours for buildings and limit open storage and lighting. Creative use of colour can be used to reduce the apparent scale of larger commercial buildings.
- Caravan/chalet/campsites/gypsy and traveller sites are likely to have the greatest visual impact in open landscapes, whilst small-scale proposals may be more appropriate in enclosed landscapes. Ensure that they are well screened by existing vegetation and avoid suburban features (see ‘residential’). Consider guidelines set out within the CLG Good Practice Guide - Designing Gypsy and Traveller Sites (<http://www.communities.gov.uk/documents/housing/pdf/designinggypsiesites.pdf>).
- Golfcourses should relate to the existing landscape form and pattern, avoiding hilltops, hill and valley sides. Look for opportunities to naturalise their appearance by use of traditional landscape elements such as hedgerows, shelterbelts, shaws, woodland and large areas of rough grassland. Consider the colours and textures of grass seeding. Reintroduce native planting in intensively farmed areas. Consider English Heritage guidance on golf in historic landscapes. Avoid floodlighting.
- Minerals extraction brings a variety of environmental harm, however this can be minimised by following best practice and establishing a landscape strategy pre, during and post extraction. This should ensure that the post-quarrying landscape is as good, if not better than the pre-quarrying landscape. Opportunities for biodiversity should be maximised here. Refer to DCLG Mineral Planning Guidance Notes and Minerals Policy Statements.

- For new stables (including non-commercial) and ménages/exercise areas, re-use or locate buildings as part of existing building group or in field corners and avoid the proliferation of buildings and other structures. Use natural folds in the landscape, existing vegetation, or copses. Use dark matt colours for stables and surfaces or (preferably) local materials. Black weatherboarding should be used in historic landscapes, historic groups of buildings or on traditionally designed ‘barns’. Avoid overgrazing and excessive field sub-division with post and rail fencing/wire/white tape. Look for opportunities to plant hedgerows around and between the fragmented fields (including replacing evergreen belts) and to replace/supplement fencing with hedging. Within the Kent Downs AONB, refer to the Good Practice Horse Management Pasture Management (DRAFT - Kent Downs AONB Unit) See also separate guidance issued by the Council (<http://www.swale.gov.uk/1491-supplementary-planning-guidance-spg/>).

### Infrastructure

- New roads often contrast with landscape pattern so design and landscaping should integrate the road with the surrounding landscape and extend beyond the road corridor.
- For highway works and management, conserve hedges, grass verges/banks, trees, walls, bridges and roadside features like finger posts or milestones, whilst avoiding concrete kerbing, standardised ‘features’, excessive sight-lines and lighting, especially between settlements. Make restrained use of coloured surfaces and road markings.
- For masts, avoid breaking open skylines or intruding into sensitive views. Site on lower slopes against a backdrop of trees. Landscape both close to the structure and, where practical, close to receptors.
- With the exception of marshland, flatter large-scale landscapes, can, generally, better accommodate overhead cabling where associated with existing structures. Often, the use of underground cabling will be the most appropriate.
- Wind farms in exposed locations are often prominent features. Visual impacts are likely to be reduced when located in landscapes where there is a diverse mix of land uses against which the turbines can be viewed.
- Within the Kent Downs AONB, have regard to the ‘Rural Streets and Lanes: A Design Handbook’, (Kent Downs AONB Unit, June 2009).
- In rural areas, take design cues from rural lanes; avoid engineered lines, parallel kerb lines and consider indigenous finishes (pea shingle) rather than standard bitumen McCadern.

The landscape assessment has been undertaken based on the methodology promoted by the Countryside Agency (now Natural England) through their Countryside Character Programme and Landscape Assessment Guidance 2002. It also has incorporated the latest developments in biodiversity (habitat) opportunity mapping. In addition to the characterisation of the landscape, judgements have been made on its condition and sensitivity to generate guidance to assist Swale Borough Council in targeting resources and actions to those areas with greatest need.

The landscape assessment has identified 42 landscape character areas across the Borough. Each of these areas has physical and cultural characteristics that are distinct and identifiable from the others. Some of the differences between the character areas are not immediately apparent until they are broken down to their basic landscape components. The transition between the areas on the ground may be quite gradual in some places but the essential characteristics are quite distinct from each other. Some character areas appear

to change quite dramatically within themselves. These changes may be due to either very local variations or more typically due to changes in condition or land management.

This number of landscape character areas shows Swale Borough as having a highly diverse landscape, ranging from freshwater and saltwater marshes, open chalk downs, unspoilt enclosed dry valleys, strongly patterned fruit producing landscape, large tracts of ancient woodland and areas of mixed farming. Within these landscapes are many attractive villages with historic buildings and parkland estates, which complement the natural environment and reflect its historic past.

Landscape character is not static. For example, many farming landscapes are under pressure due to intensification of arable cultivation. To the north of the borough, agricultural intensification is threatening the extent of traditional grazing marsh and salt marsh, along with traditional features such as timber wing fencing and gates and sporadic features such as windmills, sheepfolds/washes and footbridges.

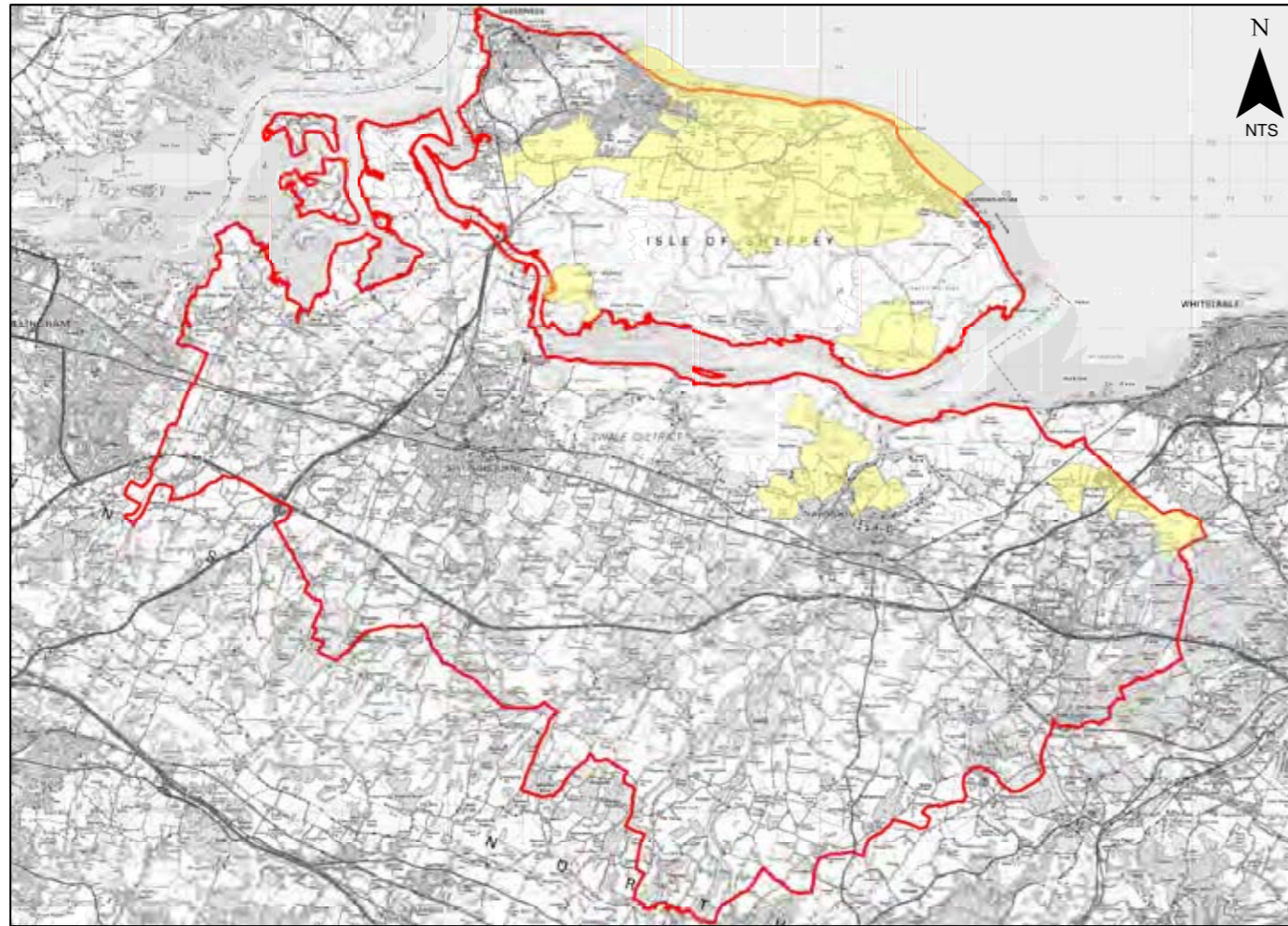
Modern agricultural practices have caused extensive loss of traditional hedgerow boundaries throughout the farmed landscape to the north of the borough and throughout the dry valleys and downs to the south. Agricultural intensification is fragmenting the traditional small scale enclosure pattern of the fruit belt landscape, central to the borough, and many orchards and hop gardens have been removed. It is also threatening the extent of species rich chalk grassland within the dry valleys and downs to the south of the borough. Woodland fringe is also vulnerable, and parcels of woodland which lack ecological connectivity with other woodland habitats are becoming isolated.

Modern trends and market forces have influenced the continuity of traditional orchards, so that some are derelict and left unmanaged. Similarly, trends such as conifer plantations and sweet chestnut coppice are threatening the integrity of traditional native broadleaf woodland planting.

The quality and rural character of the borough is vulnerable to insensitive and inappropriate development. Whilst the marshland is particularly sensitive to new development which is most obtrusive in open views and detracts from the undeveloped quality of the landscape, farmland to the north of the borough is vulnerable to insensitive urban fringe developments such as industrial development and infrastructure.

However, there are still numerous areas of landscape with a well-developed traditional patchwork of fruit fields, shelterbelts and woodlands that are worthy of conservation and opportunities to restore landscape structure through the actions of landowners or developers, as part of agri-environmental schemes, or through the actions of conservation organisations. In a different way, our coastal landscapes will be subject to increasing changes due to sea level rise and alteration of sea defences. It is hoped that this document and its guidance will assist the process of accommodating changes whilst maintaining the essential character and variety of these landscapes.





## Landscape

To the north of the Isle of Sheppey, the London Clay ridges and outcrops have formed a landscape which is elevated above the low lying marshland to the south. The drier soils have resulted in arable farming being a dominant land use, whilst the London Clay outcrops bordering the marshland tend to be overlain with tertiary deposits and are therefore characteristic of fruit belt landscape types. The orchards enclosed by hedgerows, tree lines and windbreaks provide a contrast to the surrounding open marshland landscape. Farms and larger settlements are located on the higher, drier pockets of land above the neighbouring marshes, usually surrounded by stunted and windswept trees and hedges which are particularly prominent vertical features in the generally flat, open landscape.

## Biodiversity

The predominant land use in this area is intensive arable farming with occasional small orchards, so existing BAP habitats are limited.

The strategic Biodiversity Network Opportunity is very mixed, with such opportunity being rather localised and reflecting the interest in adjacent character areas. Many of these landscapes are bounded by marshland, but some, to the east are also situated on the edge of the Blean woodland complex. Outside of the main areas of network opportunity there are more localised opportunities to improve the biodiversity resource in a similar way to Fruit Belt landscape types. A number of BAP habitats associated with lowland farming are prevalent here, such as traditional orchards, hedgerows and arable field margins. The latter two habitat types provide not only valuable refuges for wildlife, but also important linear linkage ('corridors') between larger patches of habitat such as woodland and grassland/grazing marsh.

Appropriately managed arable habitats are becoming increasingly important for certain open farmland species, including brown hare and farmland birds such as skylark, tree sparrow and turtle dove. Where arable land incorporates patches of set-aside, spring-sown crops, species-rich hedgerows, grass leys and/or wide field margins, such species can flourish. However, some of these management practices have waned over recent decades leading to declines in these key species.

The conservation of traditional orchards is a priority at both national and county level as reflected in the UK BAP and the Kent BAP. In their mixture of rough grassland and old trees, they offer a similar habitat to parkland and are important for birds and invertebrates.

The Environmental Stewardship scheme administered by Natural England can help arable and orchard farmland to incorporate valuable habitat features and management practices through targeted funding and advice.

## Climate Change

With a current lack of detailed studies, it is difficult to predict how this area's characteristic habitats will respond to climate change, but species composition within habitats is highly likely to alter. For example, in woods shallow-rooted beech trees may suffer from drier soils but small leaved lime reproduction may increase in response to warmer temperatures. Ponds in these landscapes may also be threatened by hotter, drier summers. Veteran trees within boundaries and along ancient hedgerows are a key concern as the increase in storm-force winds may fell these important habitat features. This could lead to a significant loss of biodiversity, in particular bats, lichens and notable invertebrates of standing dead wood. Therefore, the conservation of veteran trees and the planting of native replacements for the future are important.

In these farmland landscape types, the economic response to climate change of the agricultural sector may have a greater effect on habitat quality and distribution than the direct climatic effects themselves. Warmer temperatures and drier summers, plus changing world markets may lead to a shift to land uses which can take advantage of such conditions. The challenge will be to ensure that such changes are aligned with mechanisms to preserve and connect important farmland habitats.

## Clay Farmland Guidelines

- Where the urban fringe and prison complexes, holiday parks, industrial buildings, docks, road and rail corridors have significantly reduced the quality and rural character of these areas, the landscape would benefit from screening using native species.
- Conserve veteran trees along boundaries and within ancient hedgerows where these occur along roads and drovers tracks, and plant new standard native species to ensure the continuation of this key characteristic.
- Encourage the reinstatement of hedgerows along former boundaries.



# 13. Central Sheppey Farmlands



## Key Characteristics

- Ridge of London clay rising steeply to north
- Eroded clay cliffs of geological significance
- Coastal views of estuary and windfarm
- Large-scale open predominantly arable landscape, with infrequent isolated orchards
- Remnant shelterbelts and fragments of over-mature hedgerows
- Poor quality urban fringe developments including holiday parks
- Distinctive outcrop at Bunnybank, Eastchurch
- Prison complex raised on Stanford Hill provides a dominant feature

## Landscape Description



orchards and overgrown hedgerows provide some localised enclosure and shelter. Community woodlands have been planted in the area in association with new housing.

The steep rolling topography, large open fields and lack of mature woodland all helps in providing long views to the mainland and across the vast marshlands adjacent to the Swale Estuary. These views are particularly notable from Eastchurch, where there are also extensive views towards Leysdown and Whitstable to the east.

Villages, hamlets and farms are scattered across the area and are mostly in keeping with its rural character. However, some oversized farm buildings sited in the lower lying, open areas are incongruous features and inappropriately sited. Elsewhere insensitive modern residential and holiday developments are poorly integrated and intrusive and generally have an urbanising effect. Urban fringe characteristics are particularly apparent at Neatscourt and Rushenden, with the construction of the Rushenden Relief Road between Rushenden and the A249 and residential and employment development in association with the Queensborough and Rushenden Regeneration. The Bunnybank at Eastchurch is one of the few remaining large areas of undeveloped land within the village. The trees here are a distinctive feature in the landscape.

The Central Sheppey Farmlands are part of the London clay ridge that runs across the northern half of the Isle of Sheppey. It provides the area with a distinctive elevated relief. The ground rises northwards from the flat alluvial plains of the marshland, to form an area of complex topography before dropping away to the sea on the northern side. These slumped, clay cliffs are of significant geological and landscape interest. To the east the steep cliffs of Warden Point are a Site of Special Scientific Interest and are of particular interest for their fossil remains and botanical interest. At its western end the character area is punctuated by the prominent Furze and Barrow Hills.

Traditionally land use was predominantly pasture with occasional orchards but it is now mainly put down to arable cultivation. The combined effects of Dutch Elm Disease, removal of hedgerows and coastal exposure have all contributed to the development of an open and exposed character. The remnant field pattern indicates small-scale fields to the north and east with larger fields to the south and west associated with former drove roads from the higher, drier land out onto the summer grazing of the marshland. Pockets of scrub woodland, some roadside hedges, occasional poplar shelterbelts around existing or former



## Condition: Poor

The condition of the landscape is generally poor. Strong mature hedgerow corridors do exist along the main roads but elsewhere the landscape has an exposed and denuded character, with fragmented shelterbelts and hedgerows scattered across the open arable fields. Woodland planting in association with recent housing development on the periphery of Minster helps to soften the urban edge.

Urban fringe landscapes contain elements that intrude upon and significantly detract from the rural character. Such problems are typically seen along the east coast, where residential development, non-agricultural land uses such as horse grazing and playing fields and poorly integrated caravan and chalet developments spill over into their rural surrounds.

The prison complex at Stanford Hill is a dominant feature in the open rural landscape. It has a wide impact on the adjoining marshland, particularly when floodlit at night.



## Guidelines: Restore and Create

Guidelines for the Central Farmlands are aimed at encouraging restoration and the creation of new landscape features.

- Consider the generic guidelines for clay farmland landscapes.
- Maintain remaining landscape features and look for opportunities to restore or create a stronger landscape structure (trees, shelterbelts, hedgerows, drains, ponds, traditional orchards and woodlands) within denuded areas.
- Look for opportunities to integrate development, including harsh edges and road corridors, through planting.
- Avoid proposals that would be unduly prominent in highly visible locations, such as undeveloped south, east and west facing slopes and limit ribbon development.
- Avoid proposals that would be unduly prominent on the undeveloped coast and those that would obstruct or erode views of the Swale or Thames Estuary.
- Minimise the impacts of external lighting at the prisons on wider landscape.

## Sensitivity: Moderate

This is a moderately sensitive landscape. The prominent hills across the area are important features, although the rural character of some is affected by insensitive and very prominent development, for example the prison at Stanford Hill. However as a whole, they retain a predominantly rural character and their visual prominence means that they are highly sensitive and cannot easily absorb development.

The undulating landform of some areas provides a more intimate and enclosed character. Further limited development could be absorbed but should be well integrated and make a positive contribution to the coherence of the landscape. However, at the undeveloped coast, the open character of the coastline and its sea views could easily be compromised.

The urbanising influence of roads, lighting, signage, power lines and ribbon development further detract from the rural character. A combination of these elements and the need to access the industrial areas to the west has created an urban fringe landscape along the B2231. Associated with this corridor is degraded farmland. A further extension of this ribbon development would be detrimental to the quality of the landscape.

- Use local and vernacular materials appropriate to the location: for boundaries – mostly hedgerows in rural locations, for roofs - Kent-peg tiles and for building walls – yellow or occasional red stock brick, black or white painted weatherboarding. For new hedges and hedgerow trees - hawthorn, pedunculate oak, ash and field maple and for planting in mixed woodland or for within developments - pedunculate oak, ash, wild cherry, field maple, hazel, hawthorn. Shelterbelts – poplar (on higher ground).

Condition	good	REINFORCE	CONSERVE & REINFORCE	CONSERVE
	moderate	CREATE & REINFORCE	CONSERVE & CREATE	CONSERVE & RESTORE
	poor	CREATE	RESTORE & CREATE	RESTORE
		low	moderate	high
<b>Sensitivity</b>				

# 13. Central Sheppey Farmlands

## Biodiversity Network Opportunity

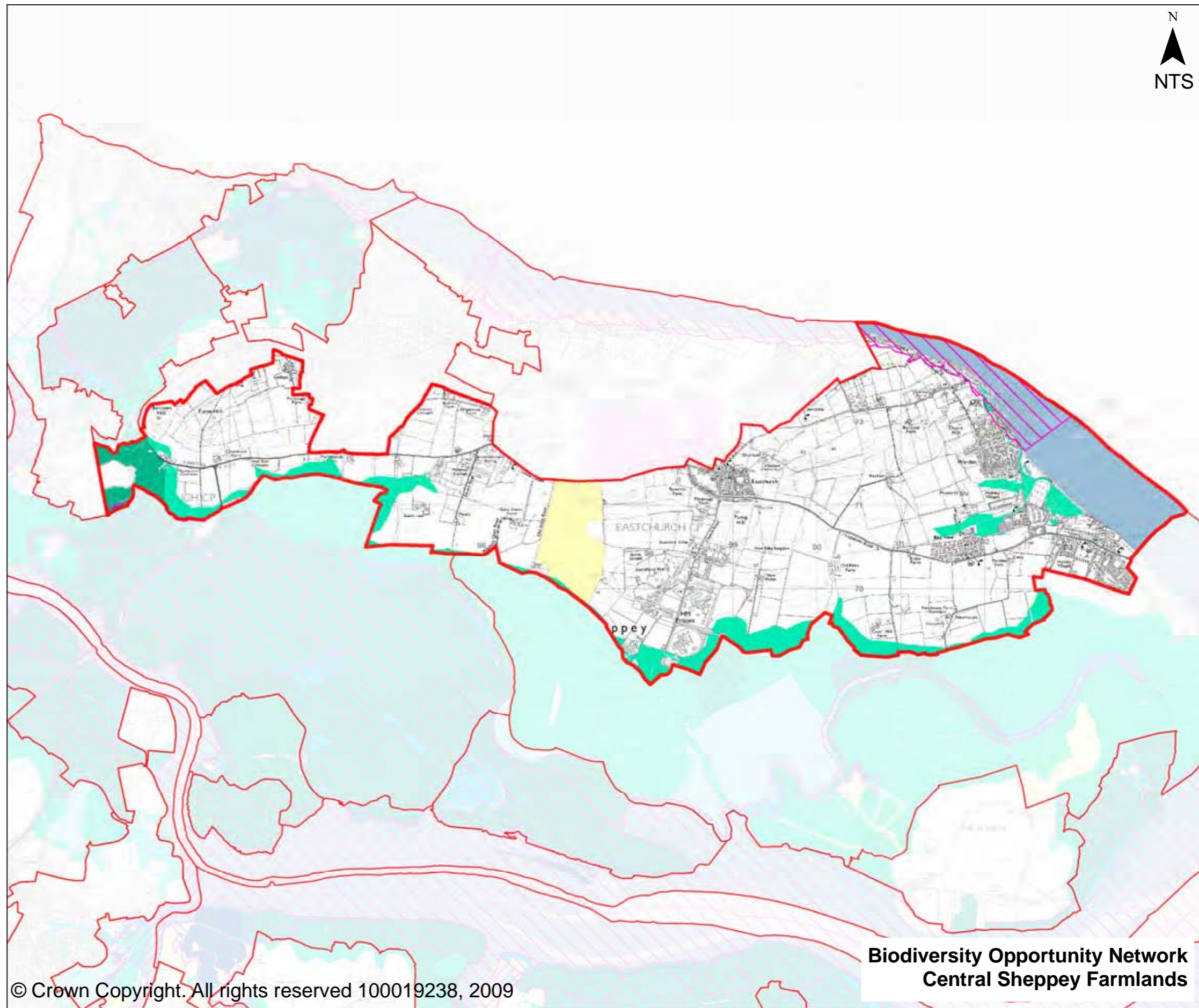
Central Sheppey Farmlands has limited habitat network potential despite the size of the area. Along the southern and eastern boundaries there is some potential for creation or restoration of grazing marsh and/or intertidal habitat in lower-lying coastal areas. In the centre of the area a swathe of species-rich grassland network opportunity also exists. Elsewhere, generic guidelines for arable and orchard land should be followed here. The restoration and extension of the hedgerow network and arable field margins would provide improved habitat connectivity at the local scale, and the sensitive management of older, traditional orchards for biodiversity should be encouraged. Much of this can be supported through the Environmental Stewardship scheme administered by Natural England.



**Legend: Biodiversity Opportunity Network**

*Note: Habitats (existing and potential) are only shown where they occur within the strategic network identified by the Kent Wildlife Trust's BOA mapping (see Figure 10 and Appendix C)*

- Open water (inland) - existing
- Wetland - existing
- Wetland - potential
- Intertidal habitat - existing
- Grazing marsh - existing
- Grazing marsh & intertidal habitat - potential
- Species-rich neutral grassland - existing
- Species-rich neutral grassland - potential
- Acid grassland & heathland - existing
- Acid grassland & heathland - potential
- Chalk grassland - existing
- Chalk grassland - potential
- Ancient Woodland - existing
- Woodland - potential
- Character Areas
- Site of Special Scientific Interest
- Local Wildlife Sites



**Appendix 7**

Extracts from The Swale Urban Extension Landscape Capacity Study, 2010

# Swale Urban Extension Landscape Capacity Study

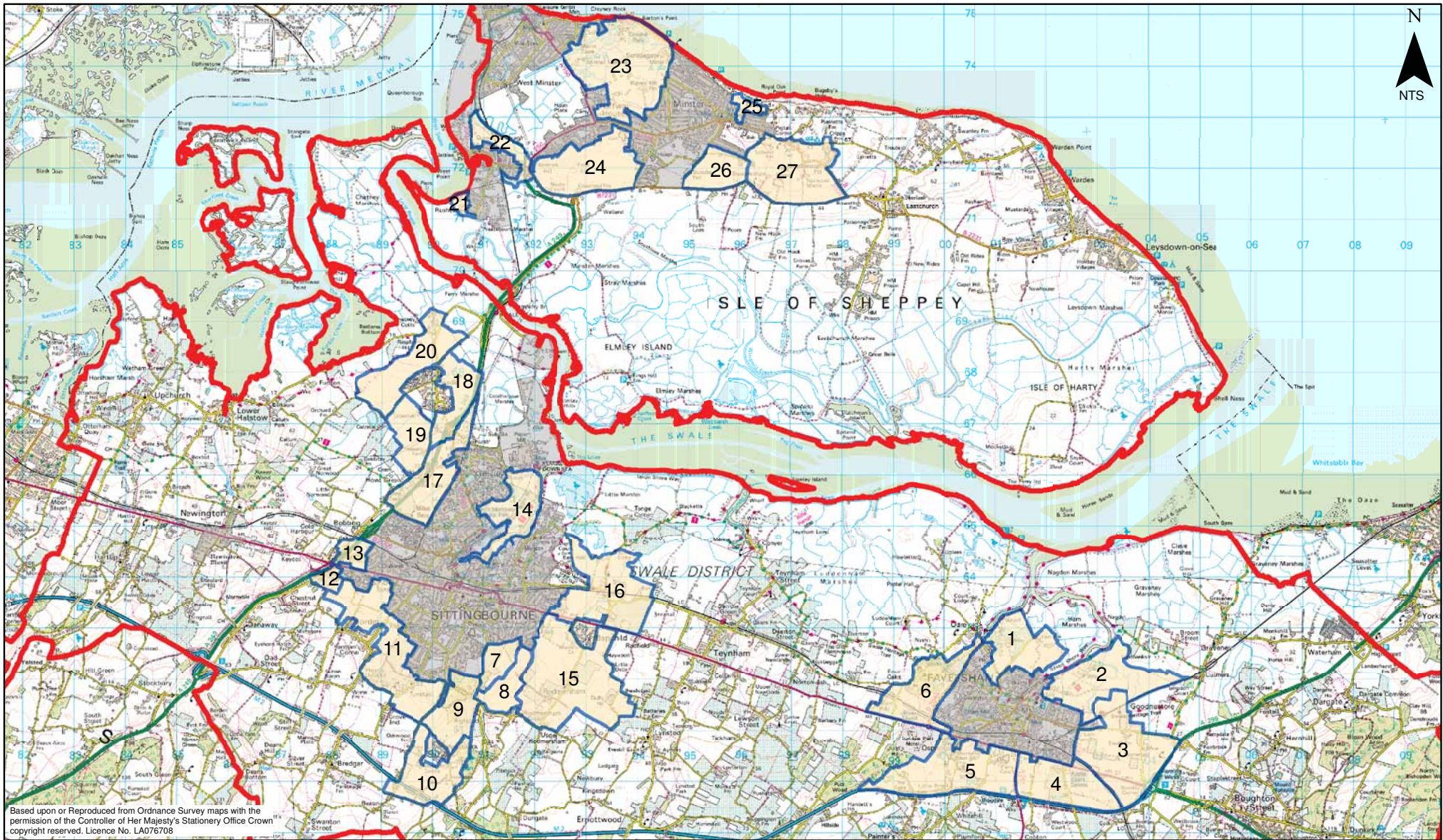


**JACOBS**

June 2010







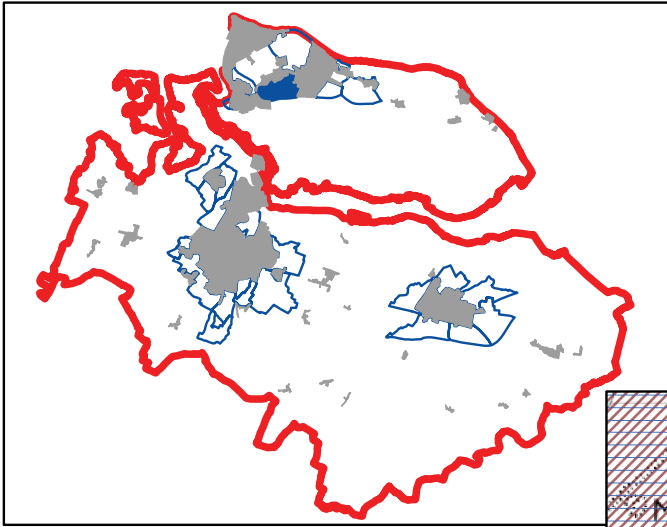
**Legend**

- Swale Borough Boundary
- Urban Areas
- Urban Extension Study Areas

- Study Area 1 – North of Faversham
- Study Area 2 – North East of Faversham
- Study Area 3 – East of Faversham
- Study Area 4 – South East of Faversham
- Study Area 5 – South West of Faversham
- Study Area 6 – West of Faversham
- Study Area 7 – South of Sittingbourne
- Study Area 8 – South of Sittingbourne
- Study Area 9 – South of Sittingbourne
- Study Area 10 – South of Sittingbourne
- Study Area 11 – South West of Sittingbourne
- Study Area 12 – West of Sittingbourne
- Study Area 13 – West of Sittingbourne
- Study Area 14 – North of Sittingbourne
- Study Area 15 – South East of Sittingbourne
- Study Area 16 – East of Sittingbourne
- Study Area 17 – North West of Sittingbourne

- Study Area 18 – East of Iwade
- Study Area 19 – South West of Iwade
- Study Area 20 – North West of Iwade
- Study Area 21 – West of Rushenden
- Study Area 22 – North of Queenborough
- Study Area 23 – South East of Sheerness and North West of Minster
- Study Area 24 – South of Minster
- Study Area 25 – North East of Minster
- Study Area 26 – South East of Minster
- Study Area 27 – South East of Minster

**Figure 1 Urban Extension Study Areas**



### Study Area 24 - South of Minster

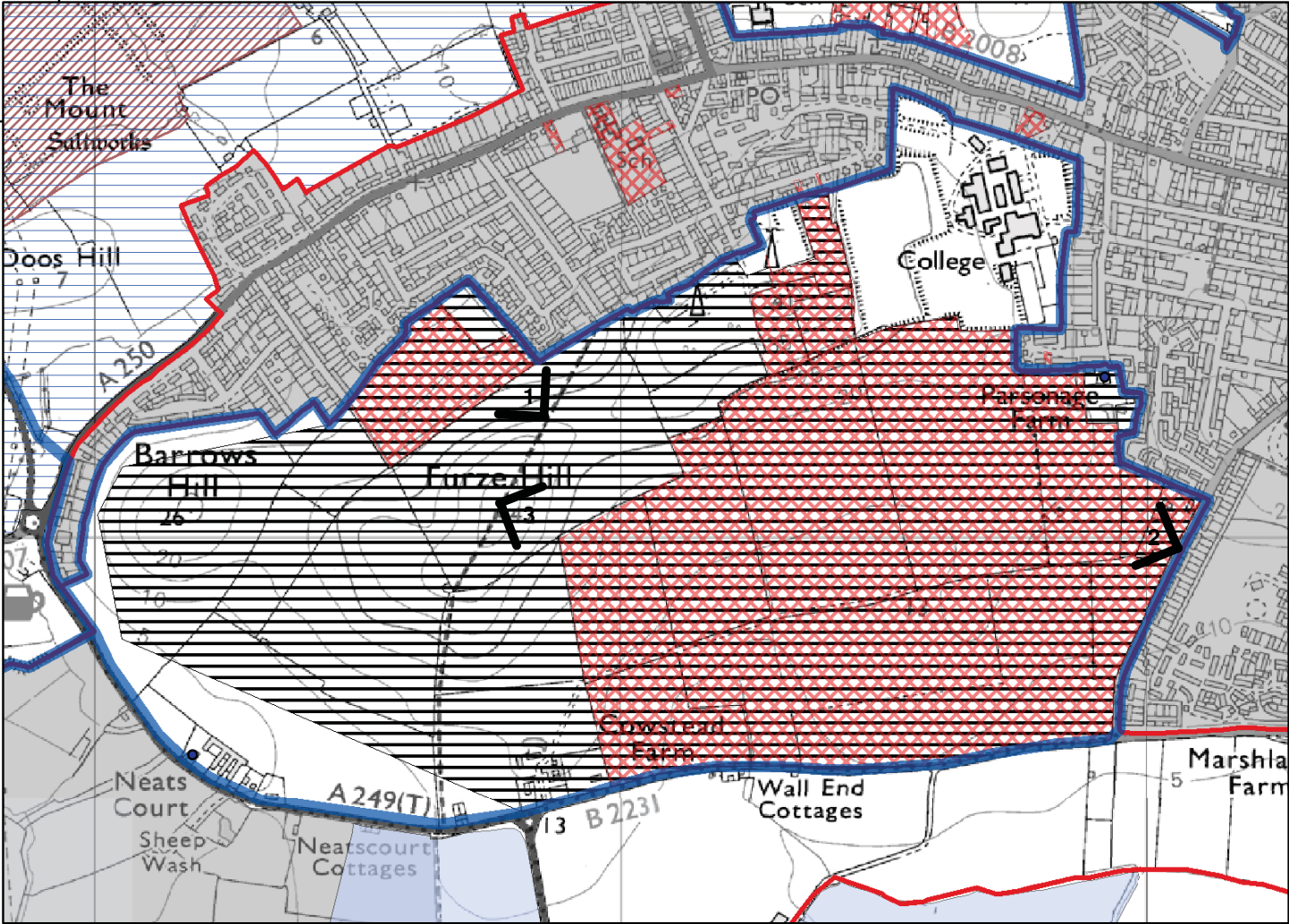
#### Legend

- Swale Borough Boundary/Landscape Character Areas
- Urban Areas
- Potential Urban Extension Study Areas
- Potential Employment Sites (as shown in Employment Land Review)
- Strategic Housing Land Availability Assessment Sites
- Area of High Townscape Value\*
- Areas of High Landscape Value\*
- Special Landscape Area\*
- Conservation Areas
- Scheduled Monuments
- Historic Parks and Gardens
- Listed Buildings
- Area of Outstanding Natural Beauty
- Ancient Woodland
- National Nature Reserve
- Local Wildlife Sites
- Site of Special Scientific Interest
- Statutory Local Nature Reserve
- Special Protection Area for Birds
- Special Area of Conservation
- Photograph Location Points

\* Local designations as defined in Swale Borough Local Plan Adopted February 2008



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## Study Area 24 – South of Minster

### Landscape Character and Urban Edge Influence



Study Area 24 falls within the western part of the wider Central Sheppey Farmlands landscape character area. The existing urban edge of Minster is generally well integrated into the landscape by existing native vegetation, hedgerows and the hilly nature of the landform which restricts clear visibility of the urban edge from the south. Higher ground at Furze Hill and Barrows Hill provides wide panoramic views across the marshland to the south, as well as industrial activity at Queenborough. However the college south of the B2008, fly tipping and masts and major infrastructure to the south, including new development in association with Rushenden Relief Road, provide an urban influence on the arable landscape.

#### Local Landscape Sensitivity: Moderate

- Predominantly rural character.
- Barrows Hill and Furze Hill provide distinctive features which are visually prominent and therefore highly sensitive.
- Urbanising influence provided by infrastructure routes.

#### Landscape Value: Moderate

- No landscape, heritage or biodiversity designations.
- Attractive landscape which has an element of scenic quality and tranquillity because of its open views and relationship to the highly sensitive marshes to the south.

### Capacity to Accommodate Change: Moderate

It is not considered appropriate to significantly extend the settlement of Minster across the Study Area, because the landscape is situated on rising ground which is visible from the highly sensitive marshland to the south. It would, however, perhaps be acceptable to extend the southern residential edge of Minster/Halway slightly where the land is physically and visually contained to the north of Furze Hill. A degree of residential extension would also perhaps be acceptable around the existing periphery of Minster where the landscape relates well to the urban edge. Any further residential development should be two storeys high at a maximum so as not to form an unduly prominent urban edge.

Landscape Value	High	Moderate	Low	Low
	Moderate	High	Moderate	Low
	Low	High	High	Moderate
		Low	Moderate	High
Landscape Sensitivity				

### Guidelines and Mitigation

- Refer to Generic Guidelines for all Study Areas.
- Conserve the open and undeveloped landscape which is prominent in highly sensitive views from the marshland to the south.
- Extend areas of wetland and /or intertidal habitat where there is potential to the south.
- Conserve and respect the rural setting of Parsonage Farm Listed Building.
- Consider highly sensitive views from the marshland to the south in any development proposals and avoid proposals that would be unduly prominent in highly visible locations.
- Ensure any extended residential development to the south of Minster is situated behind the ridgeline and is not visible in views from the south.
- Ensure any further residential development relates well to the existing periphery of Minster, and that boundary treatment is thoroughly considered in order to soften any further development into the landscape.
- Utilise and strengthen the existing vegetation structure for any further development to sit within.
- Minimise the impacts of external lighting on the dark night time character of the marshland to the south.

Study Area 24 – South of Minster

1



2



3





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